B-BMED Bachelor of Biomedicine

Year and Campus:	2010 - Parkville
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Level:	Undergraduate
Duration & Credit Points:	
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Course Overview:	The Bachelor of Biomedicine requires completion of a total of 300 points of study over three years full time, usually comprising four subjects per semester. Alternatively, the course can be completed in six or seven years part time. The core of the degree builds understanding of the structure and function of the body and consideration of the determinants of health and disease, including genetic and environmental influences. The integrated core program culminates in final year subjects that deal with contemporary issues in biomedicine and aspects of medical conditions from the molecular and cellular, right up to the population level. Depth within a particular biomedical discipline is achieved by completing 50 points (4 subjects) in a major at 3rd year level. Students also take 75 points (one quarter of the degree) from other discipline areas. These '**breadth (http://handbook.unimelb.edu.au/breadth/info/index.html)** ' subjects are designed to bridge disciplines, sharpening skills of logic, analysis and multidisciplinary problem solving.
Objectives:	# The Bachelor of Biomedicine prepares students for the challenges of advancing knowledge in biomedicine and its translation to health care delivery and research. # It provides the solid foundation necessary to prepare students for health-related and other graduate professional programs, as well as specialised graduate research. # The core program of the degree includes knowledge of the biological bases and integrated structure and function of the body, and consideration of their interaction with environmental influences as determinants of health and disease.
Course Structure & Available Subjects:	Students must complete 300 credit points over three year full time or six or seven years part time. These comprise of: Core subjects (150 credit points): # 75 credit points (six subjects) at the first year level. # 50 credit points (two subjects with each subject worth 25 credit points) at the second year level. # 25 credit points (two subjects) at the third year level. Selective subjects (25 credit points): # 25 credit points (two subjects) at second year level (may be first year level if guidelines are met) from a selective list. One Major sequence in the third year (50 credit points): # 50 credit points (four subjects) of Major builds on the selective chosen in the second year level. Breadth subjects (75 credit points): # Students will complete a breadth component of 75 points (six subjects) normally with 25 points (two subjects) taken each year. # Normally students will take 25 points (two subjects) at each year level i.e.: two 100 level or first year subjects; two 200 level or second year subjects and two 300 level or third year

subjects. This can be varied to allow students to take up to 37.5 points at 100 level, 25 points at 200 level and 12.5 points at 300 level.
Students must complete at least one 300 level breadth subject which will, in many cases, require prerequisite 100 and 200 level study.
Students may take all of their 75 points in one breadth discipline (e.g.: 75 points of a language or music studies).

Majors/Minors/ Specialisations

Bachelor of Biomedicine - Majors
Bachelor of Biomedicine majors allow students to specialise in a particular area gaining a breadth and depth of study. A major in this course comprises of 50 credit points at the third year level in a particular discipline:

Major/Minor/Specialisation
Biochemistry and Molecular Biology
Major/Minor/Specialisation
Bioengineering Systems
Major/Minor/Specialisation
Biotechnology
Major/Minor/Specialisation
Cell and Developmental Biology
Major/Minor/Specialisation
Defence and Disease
Major/Minor/Specialisation
Genetics
Major/Minor/Specialisation
Human Structure and Function
Major/Minor/Specialisation
Microbiology, Infection & Immunology
Major/Minor/Specialisation
Neuroscience
Major/Minor/Specialisation
Pathology
Major/Minor/Specialisation
Pharmacology
Major/Minor/Specialisation
Physiology

Subject Options:

First Year Core Subjects (Semester One):

Subject	Study Period Commencement:	Credit Points:
BIOL10002 Biomolecules and Cells	Semester 1	12.50
CHEM10006 Chemistry for Biomedicine	Semester 1	12.50

Plus one of the following Mathematics subjects:

(for students who haven't completed Year 12 Mathematics):

Subject	Study Period Commencement:	Credit Points:
MAST10012 Introduction to Mathematics	Semester 1	12.50

OR (for students who have study score of 25 or more in Mathematics Methods 3/4):

Subject	Study Period Commencement:	Credit Points:
MAST10005 Calculus 1	Semester 1, Semester 2	12.50

OR (for students who have study score of 27 or more in Specialist Methods 3/4):

Subject	Study Period Commencement:	Credit Points:
MAST10006 Calculus 2	Semester 1, Semester 2	12.50

First Year Core Subjects (Semester Two):

Subject	Study Period Commencement:	Credit Points:
BIOL10003 Genes and Environment	Semester 2	12.50
MAST10011 Experimental Design and Data Analysis	Semester 1, Semester 2	12.50

Plus one of the following Physics subjects:

(For students who haven't completed Year 12 Physics)

Subject	Study Period Commencement:	Credit Points:
PHYC10007 Physics for Biomedicine	Semester 2	12.50

OR (for students who have completed Year 12 Physics):

Subject	Study Period Commencement:	Credit Points:
PHYC10006 Physics 2: Life Sciences & Environment	Semester 2	12.50

Students wanting to take a Bioengineering Systems major must select the following three subjects in first year instead of 620-168 Experimental Design and Data Analysis, Mathematics and Physics:

Subject	Study Period Commencement:	Credit Points:

MAST10006 Calculus 2	Semester 1, Semester 2	12.50
MAST10007 Linear Algebra	Summer Term, Semester 1, Semester 2	12.50
ENGR10003 Engineering Systems Design 2	Summer Term, Semester 2	12.50

Second Year Core Subjects:

Subject	Study Period Commencement:	Credit Points:
BIOM20001 Molecular and Cellular Biomedicine	Semester 1	25
BIOM20002 Integrated Human Structure and Function	Semester 2	25

Second Year Selective Subjects:

Students must also select two selective subjects in the second year. To view the selectives list, please refer to the current students section of the **Bachelor of Biomedicine website (http://www.bbiomed.unimelb.edu.au/files/bbiomed/2010%20Selectives%20List%20as%20at%2023_12_09.pdf)** :

Third Year Core Subjects:

Subject	Study Period Commencement:	Credit Points:
BIOM30002 Biomedicine: Molecule to Malady	Semester 1	12.50
BIOM30001 Frontiers in Biomedicine	Semester 2	12.50

Breadth Options:

Breadth subjects offer you the opportunity to choose additional subjects from outside your major study area (**learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)**) .

View breadth subjects for this course (/faces/htdocs/user/breadth/BreadthSearchResults.jsp?breadthcourse=B-BMED&year=2010) .

Entry Requirements:

Please note: the pre-requisite requirements for the Bachelor of Biomedicine will be changing from 2011 onwards. Please refer to the **course search function (http://coursesearch.unimelb.edu.au/)** for 2011 and beyond pre-requisite requirements.
Entry to the Bachelor of Biomedicine will require completion of the final year of secondary schooling and the following subjects or approved equivalents:

2010 Entry:
Victorian Certificate of Education (VCE) Units 3 and 4
A study score of at least 25 in English/English Language/Literature or at least 30 in ESL, at least 35 in Chemistry and at least 25 in **one of** Biology, Mathematical Methods (either), Specialist Mathematics or Physics.

International Baccalaureate (IB)
English, Chemistry and one of Biology, Mathematics or Physics. Chemistry must be passed to at least Grade 6 at Standard Level and at least Grade 5 at Higher Level. All other prerequisites must be passed to at least Grade 5 at Standard Level and to at least Grade 4 at Higher Level.

National Certificate of Educational Achievement (NCEA, New Zealand)
English, Chemistry and one of Biology, Mathematics with Statistics, Mathematics with Calculus or Physics. All must be at Level 3. At least 24 credits in Chemistry with at least 18 of those at Merit or Excellence and at least 14 credits in all other prerequisites with at least 8 of those at Merit or Excellence.

GCE A-Levels
An A in Chemistry and a B in one of Mathematics, Physics or Biology and at least a Grade C in an accepted AS level English subject is required.

Interstate Qualifications
Please refer to the prerequisite table in the **2010 National Undergraduate Course Guide (http://blogs.unimelb.edu.au/futurestudents/2009/04/08/download-the-2010-national-undergraduate-course-guide-now-online/)** which provides prerequisites

	for all Australian Year 12 qualifications or visit the online **Course Search (http://coursesearch.unimelb.edu.au/)** . Other Qualifications Applicants who have undertaken other equivalent qualifications must ensure they have completed subjects equivalent to those listed under 'VCE Units 3 and 4'. View list of these qualifications on the online **Course Search (http://coursesearch.unimelb.edu.au/)** . Minimum Entry For the Bachelor of Biomedicine the *minimum* ENTER for 2010 is 95. Students who apply through **Access Melbourne (http://www.futurestudents.unimelb.edu.au/ugrad/accessmelb)** may be offerd a place even with an ENTER below this minimum. Engligh Language Requirements Please refer to the **future students website (http://www.futurestudents.unimelb.edu.au/ugrad/apply/english-req.html)** for full details on changes to English Language requirements for all courses at the University of Melbourne. For the most up to date admission requirements, go to: **http://www.futurestudents.unimelb.edu.au (http://www.futurestudents.unimelb.edu.au/)**
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Further Study:	The Bachelor of Biomedicine will give students fundamental skills in scientific method, critical thinking and problem solving, the analysis of data and evidence, written and oral communication and the ability to work collaboratively in teams. Biomedicine graduates also possess specialist scientific knowledge and technical skills for further research. The degree will also provide pathways, though specific majors, to a range of masters and professionally accredited degrees. **Honours (from 2011)** Selected streams within the Bachelor of Biomedicine offer the option of completing an honours year which will draw together the theory and practival skills gained in your undergraduate degree and will comprise of an individual research project and advanced coursework. **Graduate Professional Entry Degrees** If you wish to continue your professional studies at graduate level, the Bachelor of Biomedicine is a tailored pathway into a range of graduate professional entry programs such as the Doctor of Dental Surgery, Doctor of Medicine and Doctor of Physiotherapy and provides ideal preparation for courses in Clinical Audiology, Biomedical Engineering, Nursing, Optometry and Public Health. **Research Higher Degrees** If you wish to undertake advanced research and explore particular health science problems in more depth, there will be opportunities to proceed to a range of Research Higher Degrees at masters and doctoral level. For further information on graduate study at the University of Melbourne, refer to: **http://www.futurestudents.unimelb.edu.au/grad/ (http://www.futurestudents.unimelb.edu.au/grad/)**
Graduate Attributes:	The Bachelor of Biomedicine is delivered by academically excellent staff who are members of a vibrant research community in biomedicine and related disciplines that is recognised internationally. The integrated core curriculum across all years of the course will span traditional disciplinary boundaries in the development of fundamental understanding of the biomedical sciences and the acquisition of practical, analytical, problem-solving and communication skills. Collaborative learning is emphasised as students work in laboratories, tutorials and small groups and undertake peer review.Studies in the biomedical sciences equip students to explore the complex relationships that determine health outcomes in various settings and to become leaders in delivering effective therapies and health care strategies to combat threats to individual and public health within local, national and global communities. The larger University of Melbourne learning community encompasses many aspects of cultural diversity and students in Biomedicine will be exposed to this during the course. Understanding the socio-cultural

	determinants of health, indigenous, and global health and the challenges facing developing countries can be highlighted in elements of the core program.
Generic Skills:	The Bachelor of Biomedicine develops fundamental skills in the scientific method, critical thinking and problem solving, analysis of evidence, written and oral communication, and the ability to work collaboratively in teams.
Links to further information:	http://www.bbiomed.unimelb.edu.au/